IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Applicant:	Sachin Navin Chheda et al.	Examiner: Anand B. Patel
Serial No.:	10/684,768	Group Art Unit: 2116
Filed:	October 14, 2003	Docket No.: 200308767-1
Due Date:	**September 17, 2007**	**Confirmation: 3359**
Title:	SERVER CARD POWER SWITCH	

REPLY BRIEF UNDER 37 C.F.R. §41.37

Mail Stop Appeal Brief – Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir/Madam:

This Reply Brief is submitted in support of the Appeal Brief filed on March 15, 2006, appealing the final rejection of claims 1-2, 9-10, and 12-13 of the above-identified application as set forth in the Final Office Action mailed October 10, 2006.

At any time during the pendency of this application, please charge any required fees or credit any overpayment to Deposit Account No. 08-2025.

Appellant respectfully requests consideration and reversal of the Examiner's rejection of pending claims 1-2, 9-10, and 12-13.

STATUS OF CLAIMS

In a Final Office Action mailed October 10, 2006, claims 1-2, 9-10, and 12-13 were finally rejected, claims 19-28 were allowed, and claims 3-8, 11, and 14-18 were objected to (but considered allowable if rewritten in independent form including any base claim limitations and intervening claims limitations). Accordingly, claims 1-29 are pending in the application, with finally rejected claims 1-2, 9-10, and 12-13 being the subject of the present Appeal.

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

I. Claims 1-2 and 12-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Humpherys et. al., U.S. Patent 6,226,699 (the Humpherys Patent) in view of Wierzbicki et. al., U.S. Patent 6,789,206 (the Wierzbicki Patent).

II. Claims 9-10 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over the Humpherys Patent, in view of the Wierzbicki Patent and Dunstan U.S. Patent Publication 2004/0403345 (the Dunstan Publication).

ARGUMENT

I. The Applicable Law

The Examiner has the burden under 35 U.S.C. §103 to establish a *prima facie* case of obviousness. *In re Fine,* 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Three criteria must be satisfied to establish a *prima facie* case of obviousness. First, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would teach, suggest, or motivate one to modify a reference or to combine the teachings of multiple references. *Id.* Second, the prior art can be modified or combined only so long as there is a reasonable expectation of success. *In re Merck & Co., Inc.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Third, the prior art reference or combined prior art references must teach or suggest all of the claim limitations. *In re Royka,* 490 F.2d 981, 180 USPQ 580 (CCPA 1974). These three criteria are also set forth in §706.02(j) of the M.P.E.P.

II. Rejection of Claims 1-2 and 12-13 under 35 U.S.C. § 103 (a) as being unpatentable over the Humpherys Patent in view of the Wierzbicki Patent

Summary

In the Answer, the Examiner agreed that the Wierzbicki Patent does not disclose an electronic switching mechanism. See Examiner's Answer at Heading 10, Page 7, Paragraph 5. Moreover, as demonstrated in the Appeal Brief and as highlighted below, the Humpherys Patent does not teach an electronic switching mechanism in the manner recited in Appellants' claims 1 or 13. With neither the Wierzbicki Patent nor the Humpherys Patent disclosing the electronic switching mechanism to cause three power states of a server card, one cannot combine the Humpherys Patent and the Wierzbicki Patent to arrive at Appellants' independent claim 1 or independent claim 13.

A. The Claim Limitations of Appellants' Claims 1 and 13 Recite a Server

In Appellants' independent claim 1, the electronic switching mechanism is disposed on the server card, which comprises at least one of a blade server or a brick server.

Accordingly, the server card comprises a server (in the form a blade server or brick server), and not just a card for use with a server. In addition, because the server card is a server itself, the electronic switching mechanism is configured to cause three power states of a server. These three power states include a fully operational state, a standby state, and a shutdown state.

Accordingly, Appellants' arguments in the Appeal Brief that the remote server management board 55 (and elements 150, 155 thereof) of the Humpherys Patent fails to teach controlling different power states of a server are applicable to a determination of the patentability of Appellants' independent claim 1. These arguments, as previously made in the Appeal Brief, demonstrate that the Humphreys Patent fails to disclose the claim limitations of Appellants' claim 1 as the Humphreys Patent fails to teach an electronic mechanism causing three different power states of a blade server or brick server (in the form of a server card), as recited in Appellants' claim 1.

In Appellants' independent claim 13, an electronic switching mechanism is operated on the at least one server card with the at least one server card being removably inserted within a server chassis. Accordingly, because the server chassis is configured for the receiving servers, the server card comprises a server on a card insertable into the server chassis, and not just a card for use with a server. In addition, because the server card is a server itself, the electronic switching mechanism is configured to cause three power states of a server. These three power states include a fully operational state, a standby state, and a shutdown state.

Accordingly, Appellants' arguments in the Appeal Brief that the remote server management board 55 (and elements 150, 155) of the Humpherys Patent fails to teach controlling three different power states of a server are applicable to a determination of the patentability of Appellants' independent claim 13.

These arguments, as previously made in the Appeal Brief, demonstrate that the Humphreys Patent fails to disclose the claim limitations of Appellants' claim 13 as the Humphreys Patent fails to teach causing or activating three different power states of at least one server card removably insertable into a server chassis, as recited in Appellants' claim 13.

B. The Wierzbicki Patent Does Not Disclose an Electronic Switching Mechanism

In the Answer, the Examiner agreed that the Wierzbicki Patent does not disclose an electronic switching mechanism, with the Examiner commenting that the Humpherys Patent was relied on to disclose that limitation. See Examiner's Answer at Heading 10, Page 7, Paragraph 5.

C. The Humpherys Patent Does Not Disclose an Electronic Switching Mechanism That Causes Three Power States of a Server

(1) The Remote Server Management Board 55 of the Humphreys Patent Includes "The Mechanism" Identified By the Examiner

In the Answer, it was asserted that element 55 was not used in the rejection while it was simultaneously identified that elements 150,155 act as the "mechanism that controls the power state of the card." In particular, the Answer states that "this mechanism (150,155) in the disclosed server (10) was relied upon in the rejection to meet the claim limitations" (Page 5, Heading 10, Paragraph 1).

However, remote server management board 55 is necessarily cited in the rejection because elements 150, 155 reside on remote server management board 55 as part of a bus isolation circuit 72, which form a portion of remote server management board 55. This arrangement was extensively described in Appellants' Appeal Brief.

In particular, for the convenience of the Board, Appellants restates this basic relationship: (1) Figure 1 illustrates a server 10 which includes a remote server management board 55; (2) Figure 2 illustrates the remote server management board 55 which includes a bus isolation circuit 75; and (3) Figure 3 illustrates the bus isolation circuit 75 which includes "elements" 150, 155 (i.e., voltage selectors 150, 155) that form "the mechanism." Accordingly, the elements 150,155 ("the mechanism") cited in the Answer are part of the remote server management board 55 by their inclusion in bus isolation circuit 75, which forms a portion of remote server management board 55.

Accordingly, by virtue of citing elements 150,155, the Examiner has necessarily cited remote server management board 55.

(2) "The Mechanism" of the Remote Server Management Board 55 of the Humphreys Patent Does Not Control Three Power States of Server 10

For the reasons previously presented in the Appeal Brief (Pages 7 to Page 9, line 13), elements 150, 155 act as part of a bus isolation circuit 75 and reside on remote server management board 55 to maintain power to components of remote server management board 55 (such as microprocessor 80) in the event that the server 10 no longer supplies power to remote server management board 55. See the Humpherys Patent at Column 4, lines 53-62. In other words, elements 150, 155 act to allow remote server management board 55 to operate independent of the power state of server 10, which enables remote server management board 55 to monitor the status/operation of server 10. Accordingly, "the mechanism" or elements 150,155 cited in the Answer do not control the power state of server 10.

(3) "The Mechanism" of the Remote Server Management Board 55 of the Humpherys Patent Do Not Control the Power States of Remote Server Management Board 55

Appellants further respectfully submit that the elements 150,155 also do not provide a mechanism to control or cause three power states of remote server management board 55.

Instead, as illustrated in Figure 3 of the Humpherys Patent, elements 150,155 comprise voltage selectors which are configured to maintain power to a high voltage line 165 and to a low voltage line 170 (of a bus isolation circuit 75), which in turn, supply power to a microprocessor 80 of remote server management board 55 (Figure 2). See Figure 3 and Column 4 (lines 26 - 44) of the Humpherys Patent.

In particular, voltage selectors 150, 155 select the highest voltage available from a normally provided power source (e.g., 12 volt line 120 or 5 volt line 125 supplied from server 10 via PCI connector 70) or available from a backup power source (e.g., battery 130 of bus isolation circuit 75 of remote server management board 55). For example, if the power from server 10 to remote server management board 55 is maintained, then voltage selector 150 selects the voltage (and power) available via 12 Volt line 120 from server 10 for supply to V^{high} line 165 of bus isolation circuit 75. On the other hand, if no power is provided to

remote server management board 55 from server 10 (due to a fault of server 10 or other reason), then voltage selector 150 selects the voltage (and power) available via battery 130 of remote server management board 55 so that power can continue to be supplied on V^{high} line 165 of bus isolation circuit 75. See the Humpherys Patent at Column 4, lines 26-44 and Figure 3.

Likewise, if power from server 10 to remote server management board 55 is maintained, then voltage selector 155 selects the voltage (and power) available via 5 Volt line 125 from server 10 for supply to V^{low} line 170. On the other hand, if no power is provided to remote server management board 55 from server 10, then voltage selector 155 selects the voltage (and power) available via battery 130 of remote server management board 55 so that power can continue to be supplied on V^{low} line 170.

In summary, voltage selectors 150,155 of remote server management board 55 (as part of bus isolation circuit 75) merely act to switch between a normally –provided power source (l2 Volt line 120 and 5 Volt line 125 from server 10) and a backup power source (battery 130 of bus isolation circuit 75 of remote server management board 55).

Accordingly, "the mechanism" of voltage selector 150 and voltage selector 155 (of bus isolation circuit 72 of remote server management board 55) do not control three different power states of the remote server management board 55. Instead, voltage selectors 150,155 merely act to provide a consistent supply of power to remote server management board 55 regardless of the power state of the server 10.

Therefore, voltage selectors 150, 155 do not teach, suggest, or reasonably make obvious an electronic switching mechanism configured to cause or activate three power states of a server (i.e. a server card in the form of a blade server or brick server or at least one server card removably insertable into a server chassis) including a fully operational power state, a standby power state, or a shutdown power state, as recited in Appellants' independent claim 1 or 13.

Accordingly, whether considering either server 10 or remote server management board 55 of the Humpherys Patent, voltage selectors 150, 155 do not act as an electronic switching mechanism for causing three power states of a blade server or a brick server, as recited in Appellants' claim 1 or of a least one server card (acting as a server) as recited in Appellants' claim 13.

(4) Conclusion

For at least these reasons, neither the Wierzbicki Patent nor the Humpherys Patent disclose the electronic switching mechanism as recited in Appellants' independent claims 1 or 13. Accordingly, one cannot combine the Humpherys Patent and the Wierzbicki Patent to arrive at Appellants' independent claims 1 or 13.

D. One Skilled in the Art Would Not Combine the Humpherys Patent and the Wierzbicki Patent

In addition to maintaining its previous position and reasoning explained in the Appeal Brief why one skilled in the art would not attempt to combine the Humpherys Patent and the Wierzbicki Patent, Appellants' highlight that one of ordinary skill in the art using common sense would not attempt to exploit a a bus isolation circuit 75 (including a backup battery system) from a remote server management board 55 by converting it into an electronic switching mechanism for a server. As viewed by one skilled in the art as explained above, the Humpherys Patent would teach away from Appellants' claims 1 and 13 because the backup power system provided via bus isolation circuit 75 provides a consistent power supply to a remote server management board 55 rather than providing different power states.

Moreover, the rationale provided in the Answer that one of ordinary skill in the art **could** view both the Humpherys Patent and the Wierzbicki Patent are pertinent to the same problem of cutting costs and making equipment user-friendly in the computer field is not the same as whether one of ordinary skill in the art **should** combine the Humphreys Patent and the Wierzbicki Patent. When relying on numerous references, it is incumbent upon the Examiner to identify a sufficient reason or detailed analysis of why the references **should** be combined. See *In re Mayne*, 104 F. 3d 1339, 1342, 41 USPQ2d 1451, 1454 (Fed. Cir. 1997).

In this case, it would not make common sense to one skilled in the art to attempt to achieve an electronic switching mechanism (for causing three different power states of a server) by inserting a battery backup voltage selector (voltage selectors 150,155) of a bus isolation circuit 75 of remote server management board 55 of the Humphreys Patent onto a computing element 11 from the Wierzbicki Patent. The result of doing so would be a battery

backup system for computing element 11, not an electronic switching mechanism for causing/activating three different power states of a server (as a blade server, brick server, or server card insertable into a server chassis), are recited in Appellants' independent claims 1 or 13. Accordingly, this "combined" arrangement is not something that would have been reasonably considered by one of ordinary skill in the art applying their common sense. See *KSR Int'l Co. v. Teleflex*, 127 S. Ct. 1727, 82 USPQ2d 1385, 1397 (2007) , "[r]igid preventative rules that deny factfinders resource to common sense, however, are neither necessary under our case law nor consistent with it."

For these reasons, Appellants respectfully submit that one of ordinary skill in the art would not combine the Humpherys Patent and the Wierzbicki Patent, and therefore the Humpherys Patent and the Wierzbicki Patent fail to teach, suggest, or reasonably make obvious Appellants' independent claims 1 or 13, and therefore Appellants respectfully submit that claims 1 and 13 are patentable and allowable over the Humpherys Patent and the Wierzbicki Patent.

Dependent claims 2 and 12 are believed to be allowable because they further define patentably distinct independent claim 1, which is believed to be allowable for the reasons stated above.

III. Rejection of Claims 9-10 under 35 U.S.C. § 103 (a) as being unpatentable over the Humpherys Patent, in view of the Wierzbicki Patent and the Dunstan Publication

Appellants' dependent claims 9 and 10 are believed to be allowable based on their dependency from patentably distinct independent claim 1, which is believed to be allowable for the above-stated reasons.

In addition, the Dunstan Publication fails to cure the deficiencies of the Humpherys Patent and the Wierzbicki Patent, as the Dunstan Publication also fails to teach or suggest the claim limitations of Appellants' independent claim 1, including, an electronic switching mechanism disposed on the server card, including at least one of blade server and a brick server, for controlling the power states (fully operational, standby, and shutdown) of the server card.

For these reasons, Appellants respectfully submit that Appellant's dependent claims 9 and 10 are not taught or suggested by the Humpherys Patent, the Wierzbicki Patent and/or the Dunstan Publication.

Accordingly, Appellants respectfully request that the above 35 U.S.C. 103 rejections to claims 1-2, 9-10, and 12-13 based on the Humpherys Patent, the Wierzbicki Patent, and/or the Dunstan Publication be reconsidered and withdrawn, and that these claims be allowed.

CONCLUSION

For the above reasons, Appellants respectfully submit that the cited references neither anticipate nor render obvious claims 1-2, 9-10, and 12-13 of the pending Application. The pending claims distinguish over the cited references, and therefore, Appellants respectfully submit that the rejections must be withdrawn, and respectfully request the Examiner be reversed and claims 1-2, 9-10, and 12-13 be allowed.

Any inquiry regarding this Response should be directed to either David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854 or Paul S. Grunzweig at Telephone No. (612) 767-2504, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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